REMARKS

Claims 1-14 remain in this Application. Claims 1, 2, 3, 9, 10 and 12 have been amended.

The Examiner has objected to Claims 5-7 and 12-14 as being dependent upon a rejected base claim. The claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Pursuant to 37 CFR Section 1.111(b), Applicant requests that the Examiner's objection to Claims 5-7 and 12-14 be held in abeyance. If the Examiner should be persuaded by this response to allow independent base Claims 1 and 9 from which the objected-to claims depend, the basis for the objection will be removed.

Independent Claims 1 and 9 have been amended to further define the invention and thereby expedite prosecution of the Application. More specifically, Claims 1 and 9 has been amended to further define the feedback circuit as a voltage feedback circuit which provides a sinusoidal feedback signal into the timing circuit for synchronization of the timing circuit. Support for this amending is found throughout the Specification, in particular, page 6, lines 12-16.

Dependent Claims 2 and 3, dependent on Claim 1, have been amended to define the further inverter as being a signal inverter so as to further distinguish it from the resonant inverter recited in Claim 1. Other formal changes have been made to distinguish between an output of the inverter and an output voltage from the inverter.

Chang et al relates to a series resonant inverter with voltage feedback (105) for obtaining output AC voltage regulation and also current feed back (104) for oscillation phase lock up with resonant load B (see FIG.7). In FIG. 9a, the voltage feedback block 250 is shown in detail. The inverter output voltage signal is rectified by diode D30, then, the rectified DC signal is filtered out by capacitor C40 and amplified by op-amp 256. Block 250 is a compensator that compares DC signal (140) with a reference voltage V6 signal at the input of error op-amp 272. This op-amp also provides compensation for the voltage feedback. The voltage feedback system is a typical static system of automatic control. Current signal sensed by resistor R20 is used for current feedback that provides phase lock up of the inverter A with resonant load B (FIG.7). Current feedback has a

controlled phase shifter 208. By controlling phase shift of current feed back signal, inverter frequency and accordingly, inverter output voltage can be changed. Voltage feedback output 150 controls input/output signal phase shift in the current feed back circuit via transistors T10 and T12 providing inverter frequency adjustment for voltage regulation.

In contrast, the present invention relates to a ballast inverter having a voltage feedback circuit. The purpose and arrangement of the feedback circuit is quite different from the static voltage control feedback of the Chang et al patent. The present voltage feedback circuit provides inverter oscillations phase lock up (internal synchronization with resonant load) for safe and reliable inverter operation. This is achieved by a proper phase shifting of attenuated voltage signal. The structure of the voltage feedback in the present invention is also different, since it is not aimed at inverter voltage regulation. The advantage of using voltage phase shifted feedback loop instead of current loop is that it utilizes relatively high voltage sinusoidal signals, so it can be built noise immune, simply with passive components such as capacitors, resistors and Zener diodes. In the Chang et al patent current feedback utilizes low voltage signals and requires being built with active components.

Original Claims 1-4 and 8-11 stand rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,016,257, which issued to Chang et al.

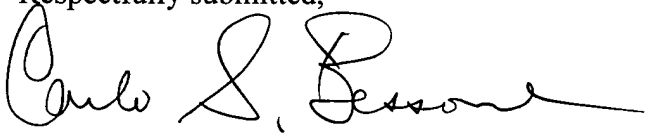
Applicant respectfully submits that the Chang et al patent cited by the Examiner as anticipating the Applicant's invention, does not contain all of the material elements recited in Applicant's present claims. Applicant submits that Chang et al fails to disclose a voltage feedback circuit that provides a sinusoidal feedback signal into a timing circuit for synchronization of the timing circuit as recited in independent Claims 1 and 9. In view of the above, Applicant submits that the rejection with respect to the present claims is deemed improper since Chang et al does not satisfy the essential requirement for a proper rejection under 35 U.S.C. § 102(a).

Absent such teaching or suggestion, the invention as defined by independent Claims 1 and 9 is deemed fully patentable over the above reference. Withdrawal of the rejection under 35 U.S.C. § 103 and allowance of independent Claims 1 and 9 is respectfully urged.

Applicant's Claims 2-8 and 10-14 are dependent on independent Claims 1 and 9, respectively, and therefore include all recitations thereof. Moreover, Applicant's dependent claims include additional limitations that, when combined with the recitations in Claims 1 or 9, render these claims further distinct and non-obvious over the cited references. Therefore, Claims 2-8 and 10-14 are likewise deemed allowable.

The Application with Claims 1-14 is deemed in condition for allowance and such action is respectfully urged. Should the Examiner believe that minor differences exist which, if overcome, would pass the Application to allowance and that said differences can be discussed in a phone conversation, the Examiner is respectfully requested to phone the undersigned at the number provided below.

Respectfully submitted,



Carlo S. Bessone
Reg. No. 30,547

OSRAM SYLVANIA INC.
100 Endicott Street
Danvers, MA 01923
(978) 750-2076